Health Priority: Intentional and Unintentional Injuries and Violence
Objective 5: Injury Surveillance System

Long-term (2010) Subcommittee Outcome Objective: Goal for 2010 is to combine or coordinate existing data systems into a surveillance system.

Inputs	Outputs		Outcomes		
	Activities	**Participation/ Reach**	**Short-term 2002-2004**	**Medium-term 2005-2007**	**Long-term 2008-2010**
3 Ps - Policymakers (state, county, and local), providers, and public, in general Staff from several state agencies and current data sources (that are not integrated) Department of Transportation-Highway Safety Plan distributes $3M+ funds to state and locals; annual crash facts; free printed materials; free loan videos, etc.; and Bureau of Health Information annual report EMS/trauma system; local public safety hospitals; professional and non-profit organizations; and community groups Medical College of Wisconsin-Injury research Center National Farm Center	By 2002, identify existing data sources and common data elements By 2002, evaluate the purpose of existing data, make existing data more accessible, educate on usefulness of existing data, train more data analysts By 2002, promote the value of a surveillance system By 2003, begin training, meetings, assessments, public relations, public information, education, community programs, technical support, data production and analysis Publications By 2003, begin law and policy development, workshops/meetings	Policymakers (state, county, and local), providers, public, in general Agencies, data holders and data managers EMS/trauma system; local public safety hospitals; professional and non-profit organizations; and community groups Data analysts Targets identified based on local, regional, and state data Civic and other groups for program buy-in	By 2002, policymakers, providers, and public will be educated on surveillance issues By 2002, data sources will be researched and evaluated for overlap, agreement will be made to develop a common data set, identify and develop common data elements and begin data collection By 2002, agreements will be made to access data, analysts from various organizations can look at issues and barriers By 2002, convene annual meeting of partners with progress update By 2003, training for professionals will be developed and delivered By 2003, educational materials will be developed and distributed to targets and the general public. Data will be provided to communities and decision-makers	By 2005, Wisconsin will have a functional injury surveillance system in place that allows for easier collection of data, access to data, and analysis in order to affect outcomes. By 2006, various data sources will be collected and analyzed using common elements. By 2007, a systematic evaluation of injuries will be done based on the data. By 2008, data on the effectiveness of decreasing injuries in a cost effective way will drive program objectives and decisions. By 2008, data will be used to collaborate towards overarching goals. By 2008, focused use of integrated data in program activities will decrease injuries and create a more efficient system.	By 2010, existing data systems will be combined or coordinated into a more functional system.

Definition: An injury surveillance system is a method to collect, analyze and interpret injury data and then disseminate the findings to positively impact program activities.
Goal: Develop and implement a statewide surveillance system that will be operational and will be expanded and evaluated for effectiveness by 2010.
Base Year: 2001 - No formal injury surveillance system is in place. Wisconsin has all of the 11 essential data systems identified by the Centers for Disease Control and Prevention, but the databases do not have standard data element and are not integrated.
Future Goal: By 2005, Wisconsin will have a functional injury surveillance system in place that allows for easier collection of data, access to data, and analysis in order to affect outcomes. Goal for 2010 is to combine or coordinate existing data systems into a more functional system.

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Inputs	Outputs		Outcomes		
	Activities	**Participation/ Reach**	**Short-term 2002-2004**	**Medium-term 2005-2007**	**Long-term 2008-2010**
Wisconsin EMS Association Professional Fire Fighters of Wisconsin	training Product delivery- education/data				

Definition: A trauma system creates a mechanism to ensure that an injured patient receives the right care from the right place in a timely manner.

Objective: Develop and implement a statewide trauma system that will be fully operational by 2005 and will be evaluated for effectiveness by 2010.

Base Year: 2001 - No formal trauma system is in place.

Future Goal: By 2005 have a fully operational trauma system, including all the components identified in the WI Trauma Plan. Goal for 2010 is to evaluate effectiveness of the system by looking at comparative mortality and morbidity data from 2000 and 2010 or the most recent year available and show a decrease of 10%.

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Long-term (2010) Subcommittee Outcome Objective:
Goal for 2010 is to combine or coordinate existing data systems into a surveillance system.

Wisconsin Baseline	Wisconsin Sources and Year
None, this is a developmental objective.	Not applicable.

Federal/National Baseline	Federal/National Sources and Year
12 states had statewide hospital emergency department surveillance systems that collected data on external causes of injury in 1998.	External Cause of Injury Survey, American Public Health Association, September 1998.
23 states collected data on external causes of injury through hospital discharge data systems in 1998.	External Cause of Injury Survey, American Public Health Association.

Related USDHHS Healthy People 2010 Objectives			
Chapter	**Goal**	**Objective Number**	**Objective Statement**
15 – Injury and Violence Prevention	Reduce disabilities, injuries and deaths due to unintentional injuries and violence.	15-10	Increase the number of States and the District of Columbia with statewide emergency department surveillance systems that collect data on external causes of injury.
		15-11	Increase the number of States and the District of Columbia that collect data on external causes of injury through hospital discharge data systems.

Definitions	
Term	**Definition**
Injury surveillance system	A method to collect, analyze, and interpret injury data and then disseminate the findings to positively impact program activities.

Rationale:
An injury surveillance system is a method to collect, analyze, and interpret injury data and then disseminate the findings to all interested parties. The system utilizes relationships between people, organizations and data to use injury information in identifying priorities and then designing, implementing and evaluating injury prevention and control programs and activities. Information from the injury surveillance system needs to be widely disseminated to positively impact program activities.

Injuries are the leading cause of death for persons ages 1 to 44 (Centers for Disease Control (CDC), Web-based Injury Statistics Query and Reporting System (WISQARS data 1998). Injury deaths account for 53% of all deaths in this age group.

Statistics show injuries are the leading cause of years of productive life lost (CDC, WISQARS data 1998). Based on 1998 Wisconsin causes of death, injury deaths result in more years of productive life lost than any other cause and, in fact, are equal to the years lost due to heart disease and cancer combined.

Wisconsin currently has all 11 of the essential injury data sets that have been identified by CDC (Vital records, hospital discharge, Fatality Analysis Reporting System, Behavioral Risk Factor Surveillance System, emergency departments, medical examiners, child death review, National Occupant Protection Use Survey, Uniform Crime Reporting and emergency medical services). Unfortunately, utilizing data across the 11 data systems is difficult. Since injury is a major health issue and the number of deaths and serious injuries can be altered, it would be extremely helpful to maximize usage of the data by integrating data from all 11 systems.

Coordinated data collection and sharing of data would allow the following to occur:
- Development of common data elements so similar analysis could be performed because all data systems are using the same definitions and elements.
- Economies of scale in collecting, analyzing, and disseminating injury information.
- Utilization of technology advancements to make optimal use of existing data, including the identification of factors that contribute to the cause of the injury.

Outcomes:

Short-term Outcome Objectives (2002-2004)
- By 2002, educate & influence the 3 Ps on the issue - Policy Makers (state, county, and local), direct care providers, and the general public.
- By 2002, research & evaluate data sources for overlap. Data managers and stakeholders agree to develop a common data set, identify and develop common data elements, and begin data collection.
- By 2002, agreements are made to access data so analysts from various organizations can look at issues and barriers.
- By 2002, convene annual meeting of partners to update members on the status of a surveillance system and to discuss and put in place agreements to share data and consolidate data collection efforts.
- By 2003, develop and deliver training for professionals to accomplish the following:
  - To familiarize them with existing data
  - To understand the benefits of collection and use of common data elements
  - To understand the benefits of sharing data
  - To establish uniform reporting criteria
- By 2003, develop and distribute educational materials to targets and the general public. Provide data to communities and decision-makers so more people are aware of and using the data by applying data analysis to programs.

   Inputs: *(What we invest – staff, volunteers, time money, technology, equipment, etc.)*
   - Department of Health and Family Services (DHFS), Bureau of Emergency Medical Services and Injury Prevention (EMSIP), and Bureau of Health Care Information; Department of Transportation, CHSRA, Wisconsin Health and Hospital Association; Department of Justice; and coroners must research and evaluate data sources for

overlap. Data managers and stakeholders must agree to develop a common data set, identify and develop common data elements, and begin data collection.
- Key data managers and stakeholders will need to agree that the goal of an injury surveillance system transcends specific, individual databases.
- DHFS, BEMSIP staff, and Bureau of Health Care Information must meet and agree to share data and work towards a more uniform data system that meets multiple data needs.
- DHFS, BEMSIP, and Bureau of Health Care Information; Department of Transportation; UW-Madison; Medical College of Wisconsin; CHSRA; and other interested parties will need to develop and implement an educational campaign to raise awareness and educate & influence Policy Makers (state, county & local), direct care providers, and the general public about injury data collection, analysis, and applied use for program functions. These same groups will also need to develop and deliver training for professionals to educate them on the surveillance system and how it influences their work.

Note: Lead for facilitation – Department of Health and Family Services, Bureau of EMS and Injury Prevention has authority in s. 255.20, Wis. Stats., to maintain an injury prevention program that includes data collection and surveillance. The grant-funded epidemiologist in BEMSIP will do data analysis and work with the Bureau of Health Information to make use of existing data.

Outputs: *(What we do – workshops, meetings, product development, training. Who we reach-community residents, agencies, organizations, elected officials, policy leaders, etc.)*
- Development and dissemination of a standardized presentation package and educational materials on the merits and workings of a statewide injury surveillance system.
- Meeting of data stakeholders occurs and agreements are made to share data and consolidate data collection efforts when possible.
- An annual state injury profile is created and disseminated.

Medium-term Outcome Objectives (2005-2007)
- By 2005, Wisconsin will have a functional injury surveillance system in place that allows for easier collection of data, access to data, and analysis in order to affect outcomes.
- By 2006, various data sources all collect and analyze data with common elements. (DHFS, BEMSIP, and Bureau of Health Care Information; Department of Transportation; CHSRA; Wisconsin Health and Hospital Association; Department of Justice; and coroners).
- By 2007, develop a method to do systematic evaluation of injuries based on the data.
- By 2008, program objectives and decisions are driven by available data and effectiveness of decreasing injuries in a cost-effective way.
- By 2008, agencies collaborate in their use of data to address overarching goals and systemic injury issues.

Inputs: *(What we invest – staff, volunteers, time money, technology, equipment, etc.)*
- An injury data stakeholders group meets on a regular basis to discuss and solve data issues.
- DHFS, BEMSIP, and Bureau of Health Care Information; Department of Transportation; UW-Madison; Medical College of Wisconsin; and CHSRA will all collect and analyze data with common elements.

- DHFS, BEMSIP, and Bureau of Health Care Information; Department of Transportation; CHSRA; Wisconsin Health and Hospital Association; Department of Justice; and coroners will develop a method to do systematic evaluation of injuries based on the data.
- Injury programs agree that program objectives and decisions are driven by available data and the ability to decrease injuries in a cost-effective way.
- A state injury reduction plan is put in place with clearly articulated objectives that are agreed on and widely disseminated to injury programs statewide.

Outputs: *(What we do – workshops, meetings, product development, training. Who we reach-community residents, agencies, organizations, elected officials, policy leaders, etc.)*
- A user friendly injury data Internet site is made available so local programs can analyze their local data to identify needs.
- Injury programs focus their activities based on the state injury reduction plan, state injury profile, and the use of local data that has identified key injury areas.
- Regular meetings of data stakeholders and injury program managers will be ongoing to improve the system.

Long-term Outcome Objectives (2008-2010)
- By 2010, goal is to combine or coordinate existing data systems into a more functional system.

    Inputs: *(What we invest – staff, volunteers, time money, technology, equipment, etc.)*
    - Data is collected and analyzed at the local, regional, and state level.

    Outputs: *(What we do – workshops, meetings, product development, training. Who we reach-community residents, agencies, organizations, elected officials, policy leaders, etc.)*
    - Data indicates impact of statewide injury data system in decreasing injuries and death by concentrating prevention efforts.

Evaluation and Measurement
Success in implementing the system will be marked by attaining the process goals identified in the short and medium term objectives. These include creation of a data stakeholders group, formal agreements by data holders, a formal annual evaluation of injury data, and consolidation of data collection methods where possible.

The ultimate evaluation will be to see whether injury data is both more accessible and utilized in determining injury prevention program focus.

Crosswalk to Other Health and System Priorities in Healthiest Wisconsin 2010
Integrated Electronic Data and Information Systems: Use of existing or linkable databases is essential to develop the injury surveillance system. There are currently multiple sources and data platforms where injury data is residing. The development of a single injury database is neither logistically possible nor cost effective. As a result, the emphasis will be on linking existing data to merge the information in various databases.

Significant Linkages to Wisconsin's 12 Essential Public Health Services
Promote community partnerships to identify and solve health problems: Since injury data resides in

several places, it is key that partnerships are formed to share and maximize the available information and data.

Create policies and plans that support individual and community health efforts: Injury prevention involves planning by many partners in the community and region. Prominent partners include hospitals, emergency medical services (EMS), local health departments, law enforcement departments, traffic safety professionals, and injury prevention specialists. Injury prevention should be part of a any broad community health improvement process or plan.

Link people to needed health services: The goal of injury surveillance would be to provide focus to prevention efforts. By effectively targeting programs, health services will be directed for maximum impact.

Evaluate effectiveness, accessibility and quality of personal and population-based health services: A better picture of the causes, circumstances, and numbers of injuries and injury related deaths will result in efforts to reduce those numbers using measurable outcomes.

Connection to the Three Overarching Goals of Healthiest Wisconsin 2010

Protect and promote health for all: An injury surveillance system will provide needed information in developing and implementing effective injury prevention programs.

Eliminate health disparities: Injury data can be used to first identify and then impact specific disparities that may exist. By identifying injury and death rates that fall outside of a normal range, efforts can be focused to solve the problem.

Transform Wisconsin's public health system: An injury surveillance system involves participation and cooperation by a large number of partners to attain meaningful and timely data.

Key Interventions and/or Strategies Planned:
- Partnership development in sharing of data and development of program focus.
- Focused prevention strategies based on state, regional, and local data and trends.

References:

Centers for Disease Control (CDC), Web-based Injury Statistics Query and Reporting System (WISQARS data 1998).

External Cause of Injury Survey, American Public Health Association (APHA), September 1998.

U.S. Department of Health and Human Services. *Healthy People 2010.* 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC : U.S. Government Printing Office, November 2000.